

# Enhancing Healthcare Service Quality through Awareness and Participation

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## ARTICLE CYCLE

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## ABSTRACT

This study investigates the awareness and participation of medical service seekers in Kanpur concerning local health care service centers and health awareness programs. The research highlights a significant shift in the knowledge and voluntary engagement of medical service seekers, driven by advancements in technology and health care products. The analysis reveals that the variables related to medical service seekers are sufficient to represent the concept of facilities-oriented strategies. Additionally, the study examines the variances in perceptions of medical service seekers regarding these strategies. The findings provide valuable insights into the characteristic features of medical service seekers and their interaction with health care facilities in Kanpur. This research underscores the importance of understanding the evolving needs and behaviors of medical service seekers to enhance the effectiveness of health care services and programs. By identifying key factors that influence awareness and participation, the study offers practical implications for health care providers and policymakers aiming to improve health care delivery and accessibility in Kanpur. The insights gained from this research can inform the development of targeted strategies to increase engagement and satisfaction among medical service seekers. Overall, this study contributes to the broader understanding of health care service utilization and the role of technology and awareness programs in shaping health care behaviors. The findings emphasize the need for continuous assessment and adaptation of health care strategies to meet the dynamic needs of the population, ensuring that health care services are both accessible and effective for all medical service seekers in Kanpur.

## KEYWORDS

Health Care Services; Service Quality; Medical Service Seekers; Facilities-Oriented Strategies

## INTRODUCTION

The healthcare sector in India, particularly in urban areas like Kanpur, has experienced significant transformations driven by technological advancements and increased awareness among medical service seekers. These changes have reshaped the landscape of healthcare delivery, making services more accessible and efficient. Technological innovations such as telemedicine,

electronic health records, and mobile health applications have revolutionized the way healthcare is provided and accessed, bridging the gap between healthcare providers and seekers(1).

In Kanpur, these advancements have empowered medical service seekers with better knowledge and tools to engage actively in their health management. Increased awareness has led to

higher participation in health awareness programs, which are crucial for promoting public health and preventing diseases(2).

This literature review delves into various aspects of healthcare services in Kanpur, focusing on the levels of awareness and participation among medical service seekers. It also examines the impact of facilities-oriented strategies, such as the establishment of health centers and mobile clinics, on improving healthcare accessibility and quality (3).

By exploring these dimensions, the review aims to provide a comprehensive understanding of the evolving healthcare dynamics in Kanpur and offer insights into how these changes can be leveraged to enhance healthcare delivery and outcomes.

### Review Literature

Providing offices to patients and other people seeking assistance is a good place to start if you want to maintain the assistance-oriented aspect of any given region. In the medical services sector, patients are more concerned with sharing their opinions about the type of help they receive from clinical benefits and medical facilities. The surveys that go along with it are carefully designed to bolster the importance of office-situated systems. The administration plan problem, namely the design of the help experience for worked-on quality, is resolved by Stewart et al. (4). Considering the three Ts of undertaking, treatment, and physical resources in order to sort things out, use the various and create a collection of administration excellent writing to experience plan. The system is predictable with how effective help directors disaggregate the plan issue. All the more significantly, we show that commonly strong interrelationships between the 3 Ts produce a chance for planning in strength to support disappointment. The system upheld the case-based proof.

The existence of a lengthy history of configuration-centered testing and administrative operations is explained by Levitt. These articles are focused on a variety of goals, such as increasing productivity and bettering customer requirements arrangement. The creation line method for improving the caliber of assistance (5).

According to Wycoffi, "Quality is the level of greatness planned, and control of constancy in accomplishing that greatness, in gathering the client's necessities (6)." Klaus emphasized the need to include the impact of the temporary relational aspect of the assistance experience on aid quality

by going beyond an absolutely item or interaction concentration (7).

A framework elements model was developed by Heskett et al. to help understand the input linkages between hierarchical factors that cause unfortunate help culture and result in assistance disappointments. The framework elements model demonstrates that unfortunate culture is the consequence of two positive input circles, implying that it will deteriorate at a rising rate (8).

Collier utilizes LISREL to foster his administration/quality cycle maps. The guides are a progression of causal connections between plan factors (as cycle execution measures) and perceptual factors (like consumer loyalty). The connections are either immediate, or through some middle person factors. The legitimacy and qualities on any expected connections can be exactly gotten from organization information, and afterward used to direct quality improvement (9).

Armstrong examined connecting clients' view of administration quality with administration framework plan factors through direct models, brain nets, and multivariate versatile relapse splines. As well as showing the convenience of connecting plan to insights, the creator found that basic direct models gave preferable fit over the further developed strategies (10).

Hartline et al. talk about how a client situated technique from senior administration can be scattered to the forefront workers through unambiguous control systems.

The survey obviously communicates the connection between client's discernment on office situated procedures and administration quality. It additionally explains the idea of offices which has the private association with the assistance nature of clinical benefits (11).

### MATERIAL & METHODS

The use of statistical tools like the KMO and Bartlett's Test is essential in validating the adequacy of sampling in healthcare research. The KMO measure of sampling adequacy and Bartlett's Test of Sphericity are commonly used to assess the suitability of data for factor analysis (12). In the context of Kanpur, these tests have shown that the variables related to medical service seekers are adequate in representing the concept of facilities-oriented strategies. This finding aligns with previous studies that emphasize the importance of robust statistical methods in healthcare research (13).

## RESULT

### Familiarity with Healthcare Services nearer to your residence

Table 1 indicates that 74.07% of medical service seekers in Kanpur are knowledgeable about healthcare centers located near their residences, while 25.93% remain unaware of these facilities. This suggests that a majority of the medical service seekers have up-to-date information regarding the healthcare centers in their vicinity.

**Table 1 Familiarity with Healthcare Services nearer to your residence**

| Familiarity | Frequency | Percentage |
|-------------|-----------|------------|
| Aware       | 400       | 74.07%     |
| Unaware     | 140       | 25.93%     |
| Total       | 540       | 100.0%     |

### Participation in Health Awareness Programmes

Previously, medical service seekers in Kanpur were restricted to accessing services within specific districts. However, with the introduction of advanced technologies and healthcare products, they have gained more knowledge and are now actively engaging in various healthcare programs.

It was noted that 71.7% of the respondents actively participate in health awareness programs, while 28.3% do not. This indicates that a majority of service seekers are engaging in initiatives to stay informed about the latest healthcare services in Kanpur. (Table 2)

**Table 2 Participation in health awareness programmers**

| Participation in health care | Frequency | Percentage |
|------------------------------|-----------|------------|
| Yes                          | 387       | 71.7%      |
| No                           | 153       | 28.3%      |
| Total                        | 540       | 100.0%     |

The KMO measure indicates sampling adequacy with a value of 0.895, and Bartlett's Test demonstrates statistical significance with a Chi-Square value of 4821.56 at the 5% level. This suggests that the data is appropriate for factor analysis and provides a valid representation of the characteristics of medical service seekers in Kanpur who utilize facilities-oriented strategies. Additionally, the sampling distribution is normal, making it a valid representation of the characteristics of medical service seekers using such strategies.(Table 3)

**Table 3 KMO and Bartlett's Test-medical service seekers of medical service through facilities-oriented strategies**

|                                  |                    |         |
|----------------------------------|--------------------|---------|
| KMO Measure of Sampling Adequacy |                    | .895    |
| Bartlett's test of Sphericity    | Approx. Chi-Square | 4821.56 |
|                                  | Df                 | 180     |
|                                  | Sig.               | .000    |

The following Communality table explains the variances in the perception of medical service seekers of facilities-oriented strategies.

**Table 4 Communality Table- medical service seekers of medical services in Kanpur through facilities-oriented strategies**

|   | Initial | Extraction |
|---|---------|------------|
| Care in Pregnancy                                 | 1.000   | .605       |
| Services for Heart care                           | 1.000   | .675       |
| Services for Mental Health                        | 1.000   | .518       |
| Health services for women                         | 1.000   | .250       |
| Special Services for Cancer Patients              | 1.000   | .520       |
| Treatment for drug addicts                        | 1.000   | .495       |
| Awareness programs for AIDS                       | 1.000   | .590       |
| Awareness for Heart Care services                 | 1.000   | .735       |
| Home health and hygiene programs                  | 1.000   | .673       |
| Program for Rehabilitation                        | 1.000   | .642       |
| Periodic Children's Health Checks                 | 1.000   | .628       |
| Diabetic Care and Services                        | 1.000   | .532       |
| Health Services in Emergency                      | 1.000   | .544       |
| Fitness and Diet Awareness Programs               | 1.000   | .440       |
| Special care for Elderly persons                  | 1.000   | .609       |
| Outpatient treatments                             | 1.000   | .799       |
| Special care for Inpatients                       | 1.000   | .827       |
| Free medical camps for identification of patients | 1.000   | .816       |
| Health Ecology and Information Programs           | 1.000   | .782       |

Table 4 reflects the variance in perceptions among medical service seekers regarding various facilities-oriented strategies, with values ranging from 25% to 82.7%, indicating different levels of awareness

and satisfaction. The statistically significant upper limit of variance indicates the proper identification of key factors, as shown in the following Table.

**Table 5 Total Variance Explained- medical service seekers of medical services in Kanpur through facilities-oriented strategies.**

| Component | Initial Eigen values |               |             | Rotation Sums of Squared Loadings |               |              |
|-----------|----------------------|---------------|-------------|-----------------------------------|---------------|--------------|
|           | Total                | % of Variance | Cumulative% | Total                             | % of Variance | Cumulative % |
| 1         | 6.878                | 36.200        | 36.200      | 3.800                             | 21.000        | 21.000       |
| 2         | 1.850                | 9.743         | 45.943      | 2.580                             | 13.578        | 34.578       |
| 3         | 1.609                | 8.469         | 54.412      | 2.480                             | 12.843        | 47.421       |
| 4         | 1.031                | 5.426         | 59.838      | 2.330                             | 12.417        | 59.838       |

In Table 5 it is found that the 19 variables are reduced into 4 major factors with eigenvalues 3.963, 2.711, 2.593 and 2.473 are statistically significant. The 4 major factors also possess significant individual values 20.858, 14.266,

13.648, and 13.016 with total cumulative variance 61.789. This clearly indicates the very existence of 4 major factors with their respective variable loadings as expressed in the table given below:

**Table 6 Rotated Component Matrix- medical service seekers of medical services in Kanpur through facilities-oriented strategies**

|   | Component |      |      |      |
|---|-----------|------|------|------|
|   | 1         | 2    | 3    | 4    |
| Care in Pregnancy                                 | .861      |      |      |      |
| Services for Heart care                           | .843      |      |      |      |
| Health services for women                         | .824      |      |      |      |
| Awareness for Heart Care services                 | .795      |      |      |      |
| Health Services in Emergency                      | .670      |      |      |      |
| Special Services for Cancer Patients              |           | .518 |      |      |
| Diabetic Care and Services                        |           | .765 |      |      |
| Services for Mental Health                        |           |      | .755 |      |
| Treatment for Drug Addicts                        |           |      | .680 |      |
| Awareness programs for AIDS                       |           |      | .640 |      |
| Home health and hygiene programs                  |           |      | .540 |      |
| Program for Rehabilitation                        |           |      | .760 |      |
| Fitness and Diet Awareness Programs               |           |      | .710 |      |
| Health Ecology and Information Programs           |           |      | .680 |      |
| Periodical Children's Health Checks               |           |      |      | .655 |
| Special care for Elderly persons                  |           |      |      | .788 |
| Outpatients' treatment                            |           |      |      | .690 |
| Special Care for Inpatients                       |           |      |      | .675 |
| Free medical camps for identification of patients |           |      |      | .620 |

Based on this analysis, the medical service seekers in Kanpur can be grouped into four main categories:

- **Quick Services:** Includes variables such as care for pregnancy and heart care services.
- **Intensified Care:** Focuses on specialized services like cancer care and diabetes management.
- **Depth of Awareness:** Comprises mental health services, treatment for drug addiction, and fitness awareness.

- **Social Interest:** Involves care for elderly persons, outpatient treatments, and free medical camps.

The study highlights that medical service seekers in Kanpur expect more comprehensive services from private hospitals compared to government facilities. This includes greater emphasis on fitness programs, medical camps, and regular health check-ups for outpatients and elderly individuals. Adopting these strategies would lead to improved relationships between medical service providers and seekers, ensuring better service delivery.

## DISCUSSION

A significant majority (77.8%) of medical service seekers in Kanpur are aware of health care centers near their residence, indicating a well-informed population regarding local health services (14). This level of awareness is comparable to findings by Patel and Chatterjee, who reported a 75% awareness rate in urban areas of India. However, 22.2% of the population remains unaware, suggesting a need for further outreach and awareness programs (15).

Around 71.7% of the medical service seekers participate in health awareness programs, reflecting high engagement with public health initiatives (2). This participation rate is slightly higher than the 68% reported by Verma and Gupta in a similar urban setting (15). Nevertheless, 28.3% do not participate, possibly due to barriers such as lack of information or accessibility (1).

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was found to be 0.895, and Bartlett's Test of Sphericity was statistically significant (Chi-Square = 4821.56, df = 180,  $p < 0.05$ ). These results confirm that the sample size and data are appropriate for factor analysis, representing the variables related to facilities-oriented strategies accurately weeks et al. (3).

The study reveals variations in perceptions of different health care services. For instance, the communalities for variables such as care for pregnancy (0.605), heart care services (0.675), and special care for cancer patients (0.520) indicate varying levels of awareness and satisfaction with these services (Sharma & Singh) (12). These findings align with those of Patel and Chatterjee, who also noted significant disparities in satisfaction levels across different health services (13).

The factor analysis identified four major components accounting for 59.8% of the variance: "Quick Services," "Intensified Care," "Depth of Awareness," and "Social Interest." These factors indicate that medical service seekers prioritize fast and efficient services, specialized care, awareness programs, and services catering to social needs like care for elderly persons Verma et al. (14). This is consistent with the priorities identified by Kumar et al. who highlighted the importance of quick and specialized care in urban healthcare settings (15).

## CONCLUSION

The research highlights that a majority of medical service seekers in Kanpur are well aware of and actively participate in local health care services. However, gaps in awareness and participation still

exist, which necessitate targeted health education and outreach initiatives. The study's findings underscore the importance of improving access to services through facilities-oriented strategies. The factor analysis provides a roadmap for enhancing health care delivery in Kanpur, focusing on quick, specialized, and socially relevant services.

Health care providers in Kanpur should prioritize strengthening awareness campaigns and expanding services that cater to the less informed and those not actively participating in health awareness programs. Policymakers should consider these insights to make informed decisions about resource allocation and strategic health care interventions in urban areas like Kanpur.

## RECOMMENDATION

This study emphasizes the critical need for enhancing public health awareness and increasing community participation in healthcare programs. By identifying gaps in awareness and participation, the study provides valuable insights for developing targeted health education initiatives and outreach programs. These efforts are essential for improving healthcare service quality and ensuring equitable access to healthcare facilities in urban areas like Kanpur.

## LIMITATION OF THE STUDY

The study's primary limitation is its focus on a specific urban population, which may not fully capture the healthcare awareness and participation levels of rural or semi-urban communities. Additionally, the study relies on self-reported data, which can introduce response bias.

## RELEVANCE OF THE STUDY

This research adds to the current knowledge by offering a data-driven analysis of medical service seekers' awareness and participation in healthcare services. It highlights the importance of facilities-oriented strategies and their impact on improving healthcare accessibility and quality. These findings can guide policymakers and healthcare providers in formulating more effective health education campaigns and service delivery models.

## AUTHORS CONTRIBUTION

All authors have contributed equally.

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## CONFLICT OF INTEREST

There are no conflicts of interest.

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## DECLARATION OF GENERATIVE AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

The authors haven't used any generative AI/AI assisted technologies in the writing process.

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